



June 21, 2017

VIA ECFS

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: **Written Ex Parte Presentation**
ET Docket No. 16-414, *Evolv Technologies, Inc. Request for Waiver of Sections 15.35(b) and 15.209(a)*

Dear Ms. Dortch:

On December 16, 2016, Evolv Technologies, Inc. submitted the above-referenced waiver of the Commission's rules in order to secure equipment approval for our innovative Edge personal screening system (the "Edge").^{1/} The Commission sought comment on our proposal and received supportive comments – no critical comments were submitted.^{2/} Accordingly, we urge the Commission to act promptly to grant the waiver request so that the American public can realize the significant public interest security benefits – so crucial in today's environment – that the Edge device will provide.

While our request sought waiver of Sections 15.35(b) and 15.209(a) of the rules, we noted that our request was similar to that submitted by L-3, which the Commission granted so that L-3 could obtain equipment approval for its Advanced Imaging Technology portal.^{3/} We sought waiver of Sections 15.35(b) and 15.209(a) of the rules, and L-3 sought waiver of Section

^{1/} *Evolv Technologies, Inc., Request for Waiver of Sections 15.35(b) and 15.209(a) of the Commission's Rules to Permit the Deployment of Security Screening Portal Devices Operating in the 24.0-28.8 GHz Range*, ET Docket No. 16-414 (filed Dec. 16, 2016) ("Evolv Waiver Request").

^{2/} *Office of Engineering and Technology Declares Evolv Technologies, Inc. Request for Waiver of Sections 15.35(b) and 15.209(a) to be a "Permit-But-Disclose" Proceeding For Ex Parte Purposes and Requests Comment*, Public Notice, DA 17-108 (2017); Comments of American Airlines, ET Docket No. 16-414, at 1 (filed Mar. 15, 2017); Comments of Department of Defense, Pentagon Force Protection Agency, ET Docket No. 16-414, at 1 (filed Mar. 30, 2017); Lincoln Center for the Performing Arts, ET Docket No. 16-414, at 1 (filed Mar. 30, 2017).

^{3/} Evolv Waiver Request at 13; *Safeview, Inc. Request for Waiver of Sections 15.31(c) and 15.35(b)*, ET Docket No. 04-373 (filed Aug. 18, 2004) ("L-3 2004 Waiver Request"); *see also Request by L-3 Communications Security and Detection Systems, Inc. for Waiver of Sections 15.31, 15.35, and 15.205 of the Commission's Rules*, ET Docket No. 16-45 (filed Jan. 28, 2016) ("L-3 2016 Waiver Request"). L-3's predecessor in interest was SafeView Inc. ("SafeView"). For convenience, we refer to both SafeView and L-3 as "L-3."



15.31(c) of the rules in order to permit the measurement of the L-3 device's average radiated emissions with the frequency sweep active (rather than with the sweep stopped as the rules require).^{4/} Based on the waiver, the Commission's Office of Engineering and Technology ("OET") required that L-3's device not exceed the emissions limits specified in Section 15.209(a) of the rules when measured according to the OET-specified procedures.^{5/} OET also waived the provisions of Section 15.35(b), which specifies a limit on peak emissions from unlicensed devices of 20 dB above the corresponding maximum average emission limits of Section 15.209.^{6/} OET provided, instead, that the radiated peak power not exceed 41 dB above the average emissions limit when measured with the transmitter frequency sweep stopped and according to the procedures OET specified.^{7/} Finally, OET imposed several operational conditions on L-3, including limiting the operation of its devices to indoor use.^{8/}

While we continue to believe that the Commission can provide the relief we requested through waiver of Sections 15.35(b) and 15.209(a) of the rules, it can also reach the same result, and permit operation of the Edge product, through waiver of the same rules it waived in the L-3 case – 15.31(c) and 15.35(b). In particular, the average radiated emissions of the Edge device with the frequency sweep active (rather than stopped as the rules require) is -41.9 dBm/MHz (versus -41.3 dBm/MHz for L-3's device).⁹ The Commission has already recognized the basis for measuring the average radiated emissions in that manner, and the same rationale applies to the Edge device.^{10/} The peak emissions from the Edge device will be less than +1.0 dBm EIRP (within 1.0 dB of the L-3 peak),^{11/} meaning that using the frequency-sweep active measurement technique, the peak will be 42.3 dB (within 1.0 dB of the L-3 result) above the average maximum emission limit, instead of the 20 dB peak-to-average ratio required by Section 15.35(b) of the rules. The Commission has similarly already noted that waiver of the peak-to-average ratio is in the public interest and it may do so here consistent with its previous decision.^{12/} Accordingly, if the Commission waives Sections 15.31(c) and 15.35(b) of its rules

^{4/} L-3 2004 Waiver Request at 9-11.

^{5/} *SafeView, Inc. Request for Waiver of Section 15.31 and 15.35 of the Commission's Rules to Permit the Deployment of Security Screening Portal Devices that Operate in the 24.25-30 GHz Range*, Order, 21 FCC Rcd 8814, ¶ 1 (2006) ("2006 L-3 Waiver Order").

^{6/} *Id.* ¶ 1, 8, 22.

^{7/} *Id.* ¶ 1, 25.

^{8/} *Id.* ¶ 29.

⁹ As detailed in L-3's technical analysis in support of its 2016 waiver request, a 40 MHz victim receiver bandwidth results in average radiated emissions of -27.1 dBm for L-3's device. The same analysis results in -26.0 dBm radiated emissions for the Edge, further indicating the near-identical nature of the requests. Compare L-3 2016 Waiver Request Attachment at 4, with Evolv Waiver Request at 18.

^{10/} 2006 L-3 Waiver Order at 1.

^{11/} Evolv Waiver Request at 15.

^{12/} 2006 L-3 Waiver Order at 8.



for the Edge device as it did for L-3, we will be able to secure equipment authorization. Finally, while our initial waiver request sought widespread use of the Edge device, we agree to limit operations to indoor locations only at the present time.

Pursuant to Section 1.1206(b) of the Commission's rules, a copy of this letter has been electronically submitted in the record of this proceeding.

Respectfully submitted,

/s/ Michael Litchfield

Michael Litchfield
Chief Engineer